Chapter 5

Supplemental Facilities

Supplemental and ancillary support facilities for bicycles are important improvements for promoting increased bicycling transportation. Improvements such as bicycle parking at trip origins and destinations and rest areas along bicycle paths increase access and convenience to various locations.

Supplemental facilities can be developed in conjunction with bicycle compatible roadway improvements at key destinations such as transit centers, park and ride lots, shopping centers, downtown commercial areas, employment centers, schools and other public places. The 1991 AASHTO Guide for the Development of Bicycle Facilities recommends:

- promotion of bicycle parking facilities,
- provisions for interfacing bicycle travel with transit (bike-on-bus/rail),
- provisions for rest areas along bicycle paths, and
- development of bicycle maps.

1. Bicycle Parking and Storage Facilities

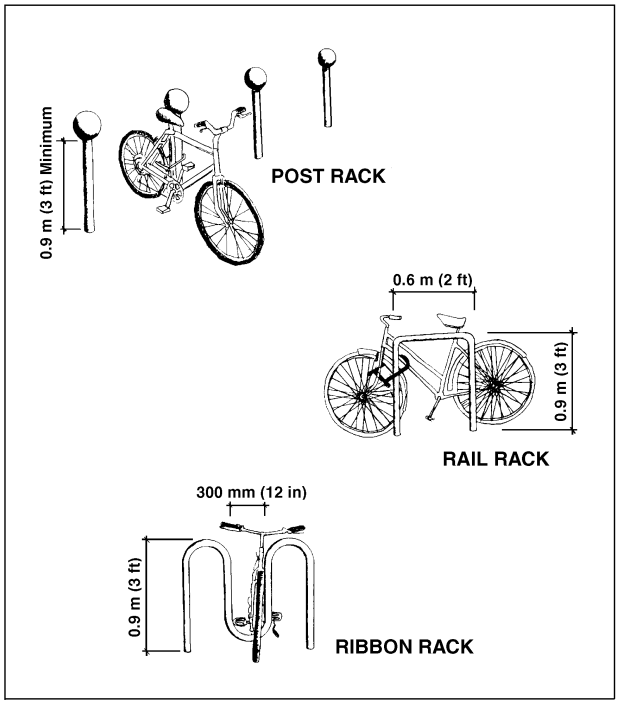
Use of a bicycle for personal transportation requires that the rider be able to park his or her bike. All facilities which provide parking to the public should provide parking for bicycles at the rate of one bicycle parking space per 10 automobile parking spaces for the first 100 parking stalls and one bicycle space for every 20 beyond that.

Guidelines for selecting and siting bicycle parking facilities may vary based on consideration of equipment types, location, and facility program administration and maintenance. Factors to be considered in all instances include the facility's compatibility with the type of site, security, ease of use, durability (weather and vandalism), accessibility and attractiveness.

a. Equipment Types

Bicycle racks and bicycle lockers are the basic equipment types. Different designs and manufacturers are readily available. Bicycle racks generally meet short-term parking needs. They are convenient for brief stops at shopping centers, libraries, post offices and other locations and are simple to use. Typical rack types are shown in Figure 45.

Bicycle lockers are suited for locations that must accommodate long-term bicycle storage needs such as at transit centers, park and ride lots, schools, employment centers and multifamily residential developments.



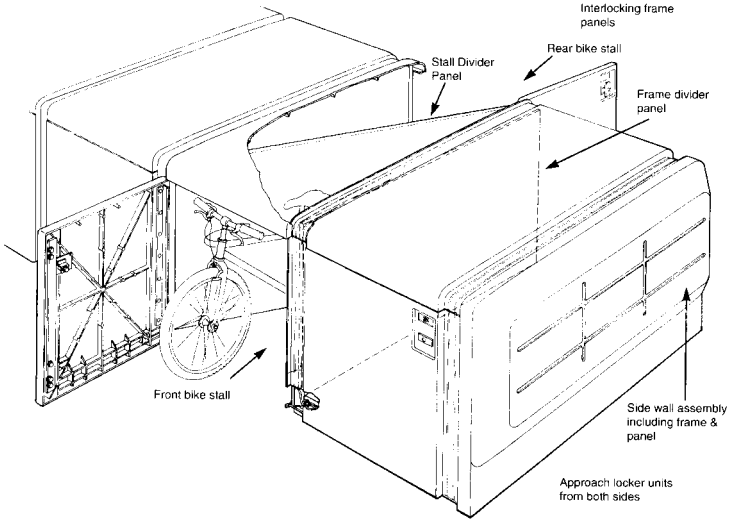
Source: Trails for the Twenty-First Century, 1993

Figure 45
Bicycle Rack Types

They are typically used by commuters and offer secure storage space and protection for accessories. Lockers usually require a rental or lease program and/or key distribution system and must be monitored and maintained. Locker designs include options for double-sided access with interior partitions and can be purchased in different type groupings and numbers of units (see Figure 46).

In some cases, a combination of both lockers for long-term storage and racks for quick, easy access should be provided at the same location to meet the needs of different types of users.

Figure 46
Bicycle Lockers



Source: Cycle Safe, Inc.

b. Location and Siting of Facilities

Short-term parking facilities, generally bicycle racks, should be highly visible and easily accessible and should be provided at entrances to destinations like libraries, downtown commercial areas, post offices, parks and other public spaces. Wherever possible, bicycle racks should be located under a shelter.

Long-term facilities such as bicycle lockers should be located in secure, easily monitored locations. At transit centers lockers should be placed near boarding locations and be separated from motor vehicle parking areas. Lockers at employment centers should be located near building entrances. In all cases, access to bicycle lockers should be convenient but must not interfere with pedestrian flow or traffic.

Siting of parking facilities should be coordinated with bicycle compatible routes or bikeways that lead to the location. Retrofit of existing motor vehicle parking lots or garages may also offer opportunities to create safe and convenient locations for bicycle storage facilities. Other design elements to consider are the installation of signs that instruct users how to use and operate the parking facility. Appropriate signage directing bicyclists to parking areas, curb ramps, lighting and overhead canopies should be considered in the design of the bicycle parking facility.

c. Facility Operation and Maintenance

Programs for operation and maintenance of bicycle parking facilities vary, depending on equipment types and locations. Bicycle racks generally require minimal maintenance and are easily operated by users. No advance rental or lease system is required. Bicycle lockers are usually leased or rented for longer time periods. A management program for leasing and key distribution must be established. For example, often transit agencies contract out to local jurisdictions or businesses at the station area to administer the locker operations. The transit agency generally provides, installs and services or maintains the units. There are also other variations in administrative programs which offer different degrees of involvement by either the transit agency or local jurisdictions.

Bicycle parking facility programs should also consider provisions for showers and lockers at employment destinations to encourage more commuters.

2. Bicycle-on-Transit

Provisions for bicycles on buses or rail can include racks on buses or on-board areas on either buses or trains.

Guidelines for considering such programs and facilities depend on service area characteristics and equipment types. In urban areas, high transit ridership and limited space on trains often limits the carrying capacity for bicycles. However, there are locations with service area characteristics that are favorable for such programs. These include transit systems with off-peak, reverse commuters where adequate space for bicycles is available; destinations and routes associated with recreation areas, shore areas, hotels and tourism where demand is higher; colleges and university settings; and air quality attainment areas which often can qualify for funding for such projects.

3. Shelters/Rest Areas/Comfort Stations

Support facilities on bicycle paths or multi-purpose trails are improvements that promote bicycle use. On long, uninterrupted bicycle paths amenities should include minor and major comfort stops. Minor facilities may include shade shelters or informational maps. Major facilities should provide restrooms, water or other conveniences.

Shelters at minor facilities can include roofed structures with protected seats. They should be set back from bicycle path traffic, located away from obstructions that can obscure visibility and

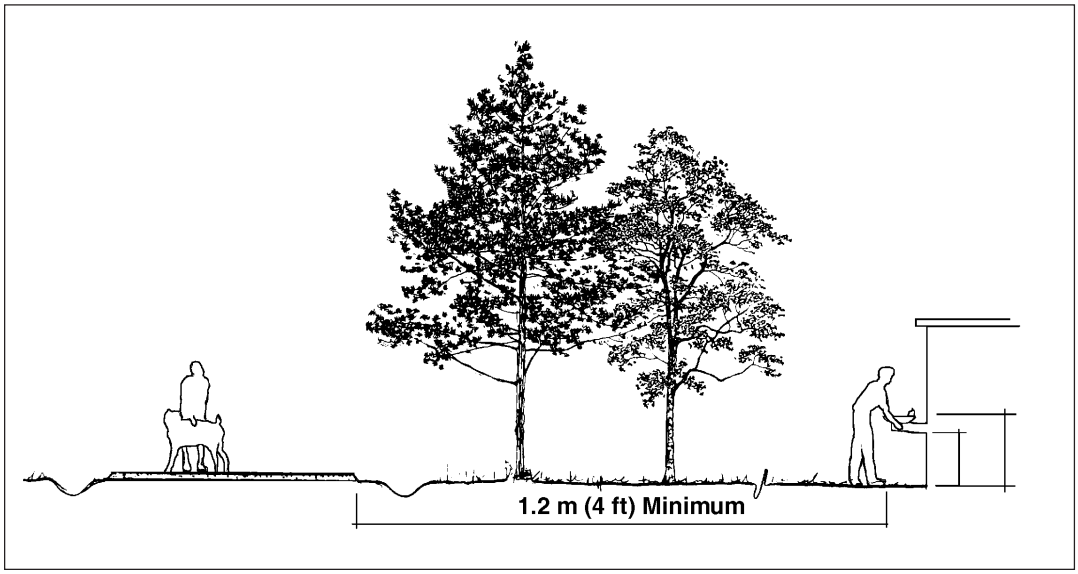
Figure 47
Typical Shelter

Source: Trails for the Twenty-First Century, 1993

cause safety concerns, and positioned to ensure protection from prevailing winds (see Figure 47).

Facilities can be located at access points of the bicycle path that help link the path to communities and surrounding land uses and destinations such as transit centers, parks, and parking areas. Full-service shelters and rest areas should meet local design and ADA standards relating to water and sewage utility connections and restroom accessibility. Water services can include drinking fountains designed with spigots to fill water bottles (see Figure 48).

Figure 48
Rest Area Facilities



Source: Trails for the Twenty-First Century, 1993